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# SB 1: Road Repair & Accountability Act of 2017

At-A-Glance



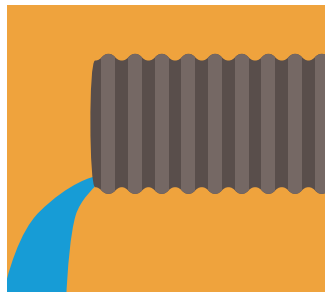
## Road Repairs

By 2027, Caltrans will repair or replace:



**17,000**

Miles of Pavement



**55,000**

Culverts and Drains



**7,700**

Signals, Signs and Sensors



**500**

Bridges



## Performance Targets



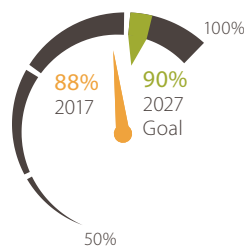
**98%**

Pavement in Good/Fair Condition



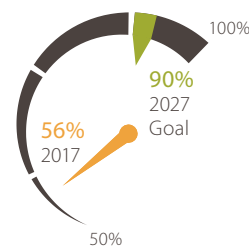
**90%**

Traffic Management Systems in Good Condition



**90%**

Drains/Culverts in Good/Fair Condition



**90%**

Rating on Pavement Maintenance



**Fix**

500 Bridges



## Additional Transportation Investments\*



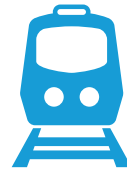
**\$2.5 billion**

Congestion Relief



**\$3 billion**

Trade Corridor Improvements



**\$7.5 billion**

Improved Transit/  
Rail Travel



**\$1 billion**

Pedestrian and Cyclist  
Safety Projects

\* Over a 10-year period



## Revenue

Taxes	Fees	Savings
<p><b>Gasoline excise tax:</b> +12¢/gallon</p> <p><b>Diesel excise tax:</b> +20¢/gallon</p> <p><b>Diesel sales tax:</b> +4%</p> <p><i>(Starting November 2017)</i></p>	<p><b>Transportation improvement fee:</b> \$25 to \$175 based on vehicle value. <i>(January 2018)</i></p> <p><b>Zero-emissions fee:</b> \$100/yr. <i>(2020)</i></p>	<p>Caltrans saves \$100 million/year through efficiency measures</p>



## Accountability



### Inspector General

- » Independent Authority
- » Annual Audit
- » Appointed by Governor



### California Transportation Commission

- » Transparent Oversight
- » Public Hearings



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# SB 1: Road Repair and Accountability Act of 2017

## New Law Overview

California's transportation system is about to undergo an historic era of improvement, and Caltrans will be at the forefront. The passage of the Road Repair and Accountability Act of 2017 provides a new and badly needed infusion of money into the state's vast transportation network that has reached the crisis stage of deterioration.

The new law, created by Senate Bill 1, approved by a two-thirds majority of the Legislature and signed by Gov. Edmund G. Brown Jr. in April, will do much to reverse that decay. It is the most far-reaching and significant transportation funding legislation in decades, projected to raise a total of \$54 billion through 2027, divided equally between state and local governments.

Caltrans will receive the bulk of the \$26 billion state share over the 10-year period. Of that, \$19 billion has been dedicated to the state's most pressing transportation problem – fixing the interlocking system of roads, bridges, culverts, traffic devices, and other critically important components.

The Road Repair and Accountability Act outlines a plan for Caltrans and other transportation agencies to fix and upgrade their systems. It lays down a series of performance measures to gauge progress, and builds in program oversight safeguards and financial accountability. See accompanying stories for more details.

The work will be funded by a combination of higher gas and diesel taxes at the pump, and new road improvement fees assessed on vehicles at the time of registration. This also includes a special fee on zero-emission vehicles (starting in 2020).

The revenue comes at a critical time. Proposition 1B, the transportation bond program approved by California



*The Road Repair and Accountability Act is expected to go a long way toward fixing and maintaining the crumbling state highway system.*

voters in 2006, is winding down, and most of the \$19.9 billion it raised have been allocated to projects up and down the state.

The new law will more than double that financial commitment to state and local transportation systems, and, unlike Prop. 1B, focuses on rehabilitation and maintenance of existing roads.

Although Caltrans has worked hard to maintain its transportation assets, it hasn't had the resources to keep

up with wear on an aging system used daily by millions of cars and trucks. The toll from last winter's storms, now topping \$1 billion, showed how vulnerable California's state highway network had become, and the future looked grim. According to estimates, the state would fall \$59 billion short of being able to maintain its highway system in adequate condition over the next 10 years had funding remained unchanged.

The law's passage has changed that dire forecast. Instead of staring into a highway funding abyss, Caltrans is now gearing up for an era of improvements. Maintenance crews will be especially active after the new state budget takes effect on July 1, looking to fix immediate problems such as potholes and crumbling roadway concrete, as well as pavement projects for sections of bumpy road. Guidelines for larger projects funded by the State Highway Operation and Protection Program (SHOPP) will be determined by Caltrans and the California Transportation Commission (CTC) in a series of public meetings this summer.

The new law will bring other positive changes. It will require Caltrans and other agencies adopt a more holistic and environmentally sensitive approach to the projects they undertake. Money is being provided to incorporate mitigation measures earlier in the project delivery process, encourage pedestrian and bicycle modes of travel, and make infrastructure improvements to accommodate emerging automotive technologies such as autonomous

Businesses that transport goods and services around the state on smoother and less congested roads should see a bottom line benefit thanks to steadier travel time and less wear on equipment.

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cars, or zero-emission vehicle charging stations.

The act also should stabilize transportation funding for the foreseeable future, giving more certainty to project planning and budgeting. Fuel taxes and new fees will be indexed for inflation, and lawmakers restored a previous formula used to calculate fuel excise taxes that should smooth out funding fluctuations.

Improving the condition of the state's road system is expected to provide an overall boost for the state's economy as well. Businesses that transport goods and services around the state on smoother and less congested roads should see a bottom line benefit thanks to steadier travel time and less wear on equipment.

And with 10 years of major road maintenance and projects on the horizon, the Road Repair and Accountability Act of 2017 promises to be a major job-creator. Every \$1 billion spent on infrastructure projects creates more than 13,000 jobs, according to federal government estimates, so the \$54 billion spent over the life of the law is shaping up as a jobs bonanza for the state. **MM**

## Allocations

**T**he Road Repair and Accountability Act of 2017 is expected to raise a total of \$54 billion over the next decade to address a daunting backlog of transportation system repairs and upgrades, while ensuring a cleaner and more sustainable travel network for the future.

Caltrans and other state agencies are due to receive roughly half of that amount, \$26 billion. The other half will go to local roads, transit agencies and an expansion of the state's growing network of pedestrian and cycle routes. The money from the new law — passed as Senate Bill 1 — will start flowing when increased fuel taxes take effect Nov. 1.

At the heart of the law is the creation of a Road Maintenance and Rehabilitation Account (RMRA) that embodies Caltrans' "fix it first" philosophy. That account will provide the lion's share of the funding to tackle deferred maintenance needs on the state highway system and the local road system.

Here are the major revenue distributions expected through the RMRA (all amounts are annual):

### **\$1.5 billion:** State Highway Maintenance and Rehabilitation

The goal is to raise 98 percent of California's highway surfaces to either "good" or "fair" condition, and ensure that 90 percent of traffic management systems such as signals, signs and sensors are in working order by 2027.

### **\$400 million:** State Bridge and Culvert Repair/Maintenance

Caltrans maintains more than 13,100 bridges in the state, and has committed to fixing at least 500 of the spans in need during the next 10 years. Culverts are a vital, but largely unseen part of the state highway system, channeling flood water and watercourses beneath roads. Of the estimated 205,000 culverts in California, Caltrans must bring at least 90 percent of them up to good or fair condition — about 55,000 based on department inspections.

### **\$200 million:** State-Local Partnership Program

The money will be used as matching funds for local entities to make their own extra investment in transportation. These funds will support the efforts of cities and counties with voter-approved transportation tax measures.

### **\$100 million:** Active Transportation Program (ATP)

The ATP was originally created by the Legislature to encourage walking and biking. The California Transportation Commission (CTC) now distributes about \$120 million yearly to cities, counties and regional transportation agencies — acting on suggestions from citizens and advocacy groups — to build or convert more bike paths, crosswalks and sidewalks. The extra \$100 million will represent an 83 percent boost in funding for the ATP.

The new law also requires Caltrans to distribute money to other specified transportation-related services. The Freeway Service Patrol that assists stranded motorists on the most congested freeways will see \$25 million more yearly (see accompanying story); \$25 million will go for local planning grants; two state universities will split \$7 million to do transportation-related research;

The goal is to raise 98 percent of California's highway surfaces to either "good" or "fair" condition, and ensure that 90 percent of traffic management systems such as signals, signs and sensors are in working order by 2027.

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and \$5 million each year is set aside for workforce training programs.

The Act also creates a pair of major new programs aimed at relieving overstressed parts of the state transportation system. The CTC will be given \$250 million yearly to fund and oversee a Congested Corridors Program, with the goal of providing travelers on crowded highways more transportation choices beyond expanding overall highway capacity.

At the same time, a Trade Corridor Enhancement Program will be established for freight-related transportation projects. The program is scheduled to receive \$300 million annually from increased diesel fuel excise taxes.

In addition, the Road Repair and Accountability Act will fund other existing transportation programs, create new ones, or designate responsibilities that will affect Caltrans:

- Caltrans' State Highway Operation and Protection Program (SHOPP) will receive a one-time infusion of \$225 million as part of a \$706 million repayment for an earlier loan made to the state General Fund during the state's fiscal crisis (\$256 million will go to a rail/transit capital improvement program; \$225 million to cities and counties for local roads, and \$20 million for local use in climate change adaption planning).
- Caltrans will be required to generate \$100 million yearly in efficiency measures that will be applied toward repair and maintenance of the state highway system, and report to the CTC.
- Transit agencies throughout the state are slated to receive about \$775 million in new funding yearly to boost service or capital projects. Depending on the program, the law requires certain transit agencies to submit proposed projects to Caltrans, and undergo performance audits to verify expenditures. **MM**

*Source: Caltrans Division of Budgets*



# Performance Targets

The Road Repair and Accountability Act of 2017 requires Caltrans to show significant improvement in the condition of the state highway system over the next decade, and relies on the federal “good-fair-poor” rating system to measure results.

The new law sets specific performance targets for pavement; culverts; bridges; and the sensors, ramp meters, signals and electronic signs that make up the California’s traffic management system.

For pavement — the highway system’s most-noticeable feature — the law lays out an expectation that no more than 2 percent should be rated poor by 2027. Reaching that goal will require work on an estimated 17,000 lane miles.

For the highway system’s water-channeling culverts, which protect roadbeds from erosion and surrounding areas from flooding, SB-1 requires that by 2027 not less than 90 percent of them be in good or fair condition. Caltrans estimates that will require work on 55,000 culverts.

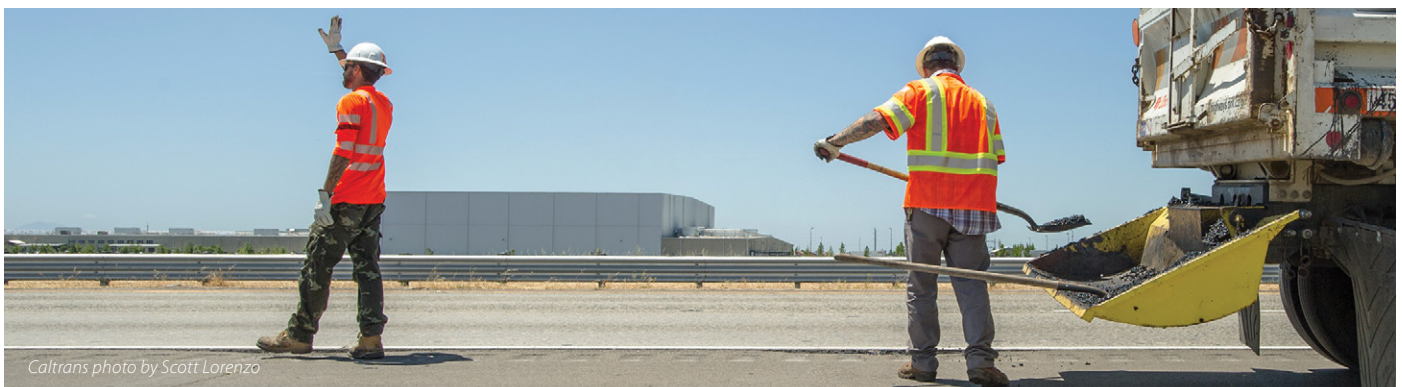
Similarly, 90 percent of transportation management systems are to be in good or fair condition after 10 years of effort, which is expected to involve installation or repair of 7,700 signals, signs, sensors and cameras.

Determining precisely what work needs to be done and in what order will involve implementation of an As-

set Management System required by state and federal law and will promote efficiency and reduce costs. Caltrans already has begun adopting asset management practices, and is moving toward full implementation by 2020. The 2017 State Highway System Management Plan (SHSMP) — revised to reflect the new resources and performance goals in SB-1, is a significant step toward a complete Asset Management System.

The SHSMP integrates maintenance, rehabilitation and highway operations into a single management plan that meets targets while fully aligning with Caltrans’ Strategic Management Plan. It also takes into account factors such as funding for the Americans with Disabilities Act (ADA), system performance and environmental stewardship. For more on Caltrans’ SHSMP, visit the [December 2016 issue](#) of the *Mile Marker*. **MM**

**Source:** Michael B. Johnson, State Asset Management Engineer



A Caltrans Maintenance crew repairs pavement on State Route 113 near Davis in Yolo County. The Road Repair and Accountability Act makes Caltrans responsible for upgrading an estimated 17,000 miles of pavement along the state highway system to good or fair condition by 2027.





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Caltrans photos by Scott Lorenzo

*Maintenance workers seal cracks on State Route 113 near Davis in Yolo County. Crews all over California will be even busier in the next decade as they bring the state highway system's pavement — as well as bridges, culverts and the Transportation Management System — up to national standards.*



# Maintenance

Although new revenue from the Road Repair and Accountability Act of 2017 will not start to flow until November, Caltrans Maintenance Division will accelerate its activities with pavement and striping when the fiscal year begins July 1.

Many more projects will be lined up in the years ahead, on top of the daily unplanned maintenance responsibilities.

The department is at the start of a massive statewide effort to repair California's infrastructure with funding from the Road Repair and Accountability Act (Senate Bill 1). The funding and oversight package passed through the Legislature in April on a two-thirds supermajority vote, and was signed by Gov. Edmund G. Brown, Jr.

It is expected to generate \$54 billion over the next decade, with \$19 billion of that directed to address deferred maintenance on the state highway system. The goal is to raise 98 percent of California's highway pavement to either "good" or "fair" condition.

Similar expectations have been set for culverts, bridges and transportation management system elements (*see story, page 13*).

The key to success will be making repairs faster than the state highway system can deteriorate. A more robust Maintenance Division will tend to a significantly larger workload. But many of the more complex, time-consuming projects will be assigned to contractors who can free up Caltrans crews for a larger number of projects.

The first three or four years are expected to involve more field maintenance projects than SHOPP projects. This shift from smaller projects to larger, more complex and expensive projects aligns well with the expected rate of revenue growth produced through SB-1 (*see the SB-1 funding story, page 11*).

Recognizing that the state highway system will continue to experience wear and tear from the usual sources, such as weather and vehicle traffic, the Maintenance Division has established guidelines intended to keep repair costs relatively low by getting to maintenance needs quickly.

Maintenance, while responsible for all roads on the state highway system, will give proportional attention to interstates and interregional highways, which carry the bulk of the state's freight traffic. To illustrate this need, consider that one heavily loaded semi-truck can do as much damage as 800 single-occupant vehicles, and that some interstates experience 100,000 truck trips daily.

The new legislation also directs Caltrans to improve the state's trade corridors — the state's major interstates. Beginning July 1, Maintenance will begin improving the pavement on those corridors — including



*Maintenance workers keep an eye out for traffic. Safety will continue to be the top priority as repairs are made throughout California.*



Interstates 5, 10, 15, 80) — as well as restriping them, replacing the 4-inch white traffic stripes with 6-inch stripes for better visibility at night and rainy conditions (See story on page 17).

The division also has many maintenance service requests for litter and debris cleanup to catch up to. It is looking to increase agreements with other partners such as the Department of Corrections and Rehabilitation, the Adopt-A-Highway Program, and certain counties such as San Diego, Los Angeles and Santa Clara, as well as state entities.

Half of the funding generated by SB-1 is designated for local jurisdictions, so local roads will be improved also. **MM**

Maintenance, while responsible for all roads on the state highway system, will give proportional attention to interstates and interregional highways, which carry the bulk of the state's freight traffic.

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*Source: Caltrans Division of Maintenance*



*Caltrans maintenance crews keep the equipment humming as they repair pavement and guardrails along State Route 113 near Davis in Yolo County.*



# Accountability

To guarantee the wise use of its multibillion-dollar investment in California's transportation infrastructure, the Road Repair and Accountability Act of 2017 has established an Inspector General within the new Independent Office of Audits and Investigations with broad oversight of the Department of Transportation and all other agencies or organizations that receive SB-1 transportation funds.

The inspector general will be appointed by the gov-

ernor and confirmed by the California state Senate for a six-year term. The law shields the inspector general from political pressure by specifying she or he may not be removed from office "except for good cause."

The inspector general's office will decide if state and federal transportation funds are being used "efficiently, effectively, economically, and in compliance with appli-

*Accountability, continued on page 18*

## Road Striping Getting a Makeover: Wider, Brighter and More Durable

Beginning in July, road repairs that require restriping will replace the 4-inch-wide stripes with 6-inch stripes. This change applies to all edge lines (the ones that mark the side of the road), lane lines and center lines (the double-yellow ones that divide oncoming traffic on roads not separated by a median).

Meanwhile, in the next few years, all of the state's 13,350 lane miles that make up the freight corridors — Interstates 5, 10, 15 and 80 and portions of State Route 99 and U.S. Highway 101 as well as some smaller connector routes — will be restriped, regardless if it's part of a repair. It is expected that all 50,000-plus lane miles of the state highway system will be restriped within a decade.

The new stripes, whether they're made of paint, tape or thermal plastic, should make it easier for an aging population to see lane demarcations. Because the new generation of striping takes up more surface, it's expected to last longer and be more durable.

Stripes come in three forms: paint, tape and enhanced thermal plastic, which is melted to at least 350 degrees before being applied directly to the pavement. Tiny reflective beads are then embedded into the paint or plastic for added visibility when headlights shine on them.

**Source:** Caltrans Office of Traffic Engineering



*A layer of new paint is laid down as part of a restriping project. Tiny glass beads are then sprayed onto the paint to increase reflectivity.*

cable state and federal requirements.” It will report its findings annually to the governor, the Legislature and the Transportation Commission (CTC), and will summarize its findings for the public.

The Act, which is expected to generate \$54 billion over 10 years, also broadens CTC oversight of Caltrans’ fix-it-first spending plan (the State Highways Operations and Protection Program), and requires that the plan be examined during public hearings in northern and southern California. **MM**

*Source: Senate Bill 1, Road Repair and Accountability Act, signed into law April 28, 2017*

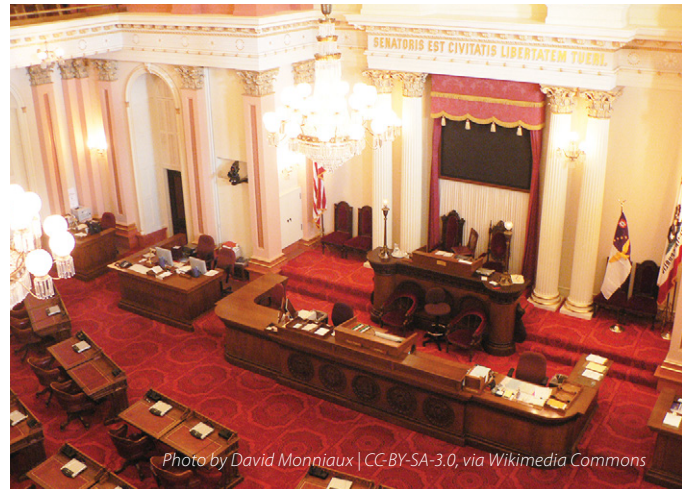


Photo by David Monniaux | CC-BY-SA-3.0, via Wikimedia Commons

## New Law Gives Lift to Stranded Motorist Service on Urban Freeways

A program that dispatches a fleet of tow trucks during the work week to quickly remove disabled or stranded vehicles from congested urban freeways throughout California will soon receive an additional \$25 million a year in funds generated by the Road Repair and Accountability Act. Current funding is about \$40 million.

The [Freeway Service Patrol](#) (FSP) is a joint program provided by Caltrans, the California Highway Patrol (CHP) and local transportation agencies.



*The Freeway Service Patrol has more than 350 tow trucks — including this one operated by Henry Gomez of A&B Towing in Orange County — patrolling urban freeways around the state to remove disabled vehicles.*

Over 350 tow trucks keep watch on more than 1,750 miles of freeways. The trucks’ drivers are trained, certified and supervised by the CHP. The operation directly assisted more than 680,000 stranded motorists in 2016, helping Caltrans meet its [mobility goals](#) by keeping traffic — and the California economy — moving.

Rapid removal of freeway obstructions also reduces fuel consumption and minimizes automobile emissions by reducing the time vehicles spend idling in stopped traffic.

[The FSP provides service to motorists at no cost.](#) All costs of operating the program are provided through state and local public funding allocations. State funding is apportioned to each FSP program through a funding formula based upon population, miles of freeway in the region, and a measurement of congestion. The local transportation agencies match the state funding allocation with a minimum of 25 percent of local funds.

The FSP operates in 23 urban counties: El Dorado, Fresno, Los Angeles, Monterey, Orange, Placer, Riverside, Sacramento, San Bernardino, San Diego, San Joaquin, Santa Barbara, Santa Cruz, Yolo and the nine counties of the San Francisco Bay Area.

*Source: California Highway Patrol, Caltrans Division of Traffic Operations*